a first display engine responsive to first graphics data for generating first video window timing data;

a second display engine responsive to second graphics data for generating second video window timing data;

a first video overlay generator operatively responsive to first graphics data;

a second video overlay generator operatively responsive to the second graphics data; and

a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data from the video scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein the programmable switching mechanism includes a selectable video clock source operatively coupled to the video scaler wherein the video scaler scales input video corresponding to a display engine for at least one of the plurality of video overlay generators in response to a video clock signal output from the selectable video clock source.

REMARKS

Applicants respectfully traverse and request reconsideration.

Claims 1-22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Blahut, et al. (U.S. Patent No. 5,570,126).

As to claim 1, the Examiner asserts that Blahut teaches, inter alia, a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data to one of a plurality of video overlay generators to facilitate select display of overlay data on a display device. The Examiner asserts that Blahut's video combiner [Fig. 4; 440] "serves effectively as a 'programmable switching mechanism,' in that the video combiner is operatively coupled to a video scaler [Fig. 4; 432], routing video data (from said video scaler) to one of a plurality of video overlay generators [Fig. 4; 414, 416 and 430 -- working in conjunction with the aforementioned video combiner], facilitating selected display of overlay data on a display device [Fig. 5]." Respectfully Applicants disagree. Applicants respectfully reassert the relevant remarks with respect to claim 1 from the prior Amendment and Response dated June 22, 2001. In particular, Applicants note that the video combiner of Blahut is analogous to a video overlay generator and not a programmable switching mechanism. Moreover, as Examiner concedes on

pages 5 and 6 of the Office Action, Blahut's video combiner differs in operation from Applicants' programmable switching mechanism; however, Applicants respectfully disagree that such switching operation is not documented in the current claim language.

Claim 1 has been amended for the purpose of clarification of an apparent misunderstanding of the Examiner. The programmable switching mechanism routes video data from the video scaler. This amendment is not made to overcome any rejection but was made only for the purpose of clarification. To the extent that the Examiner disagrees, Applicants respectfully request a statement to that effect in the Examiner's next Office Action. For example, in claim 1, as amended, Applicants claim, inter alia, a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data from the video scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device. In contrast, the video combiner of Blahut combines the output from video scalers and positioners (column 8, lines 19-20) and sends that output to a video compressor (column 8, lines 35-36). Thus, elements 414, 416, and 430, in contrast to the Examiner's assertions, do not receive any signal from the video combiner. Instead element 414 (a text generator), 416 (a cursor generator), and 430 (a video scaler and positioner) transmit signals to the video combiner which then combines those signals and sends them to a video compressor. Moreover, the data output by the text and cursor generators is not video data at all and therefore, contrary to Examiner's assertion, do not serve as video overlay generators. The text generator generates text for display on the user's display device (column 6, lines 50-51), and the cursor generator generates a cursor for display on the user's display device (column 6, lines 61-62). Thus, Applicants are unable to find, inter alia, a teaching in Blahut of a programmable switching mechanism, operatively coupled to a video scaler, to selectively route video data from the video scaler to one of a plurality of video overlay generators to facilitate selected display of early data on a display device. Applicants respectfully request a showing by column and line number of such a teaching in Blahut. Because such a teaching is not shown, Applicants believe claim 1 to be allowable.

As to claims 2, 10, and 16, the Examiner asserts that Blahut teaches wherein the programmable switching mechanism includes a programmable register. Applicants respectfully reassert the relevant remarks with respect to claims 2, 10, and 16 from the prior Amendment and

Response dated June 22, 2001. Accordingly, Applicant respectfully submits that claims 2, 10, and 16 are allowable.

As to claim 3, the Examiner asserts that Blahut teaches, inter alia, a first display engine responsive to first graphics data for generating first video window timing data, a second display engine responsive to second graphics data for generating second video window timing data, a first overlay generator operatively responsive to first graphics data; and a second video overlay generator operatively responsive to the second graphics data. The Examiner asserts in the Office Action on page 6 that the plurality of parallel video scalers [Fig. 4; 432] are equivalent to first and second display engines, and that "still frame video scalers [Fig. 4; 430], text generator [Fig. 4; 414], and cursor generator [Fig. 4; 416] all serve as video overlay generators." Respectfully Applicants disagree. Applicant respectfully reasserts the relevant remarks with respect to claim 3 from the Amendment and Response dated June 22, 2001, and with respect to claim 1 above. Applicants further note that the Specification provides that the first and second video overlay generators receive from the first and second display engines packed graphics data. The first and second video overlay generators each, inter alia, combine or mix the video data along with unpacked graphics data to form overlay information. In contrast, the still frame video scalers of Blahut [Fig. 4; 430] provide output in the form of a digitized full video frame or sequence of frames with the scaled video information at the specified position and the remainder of the frame or frames being black (column 7, lines 62-66), with neither the text generator [Fig. 4; 414] nor the cursor generator [Fig. 4; 416] generating video data (column 6, lines 50-65). Instead, the common video combiner of Blahut forms overlay information by combining the outputs from the video scalers and positioners and the text and cursor generators into a single video frame (column 8, lines 19-22). Because Blahut is silent as to, inter alia, a first overlay generator operatively responsive to first graphics data; and a second video overlay generator operatively responsive to the second graphics data, Applicants respectfully submit that claim 3 is allowable.

Claims 4 and 11 are dependent upon claims 3 and 9 respectively. Claim 3 has been shown to be allowable above. Claim 9 will be shown to be allowable below. Moreover, claims 4 and 11 introduce additional novel subject matter that represents patentable subject matter. For example, the first and second video overlay generators each include, inter alia, a keyer to combine or mix the video data along with unpacked graphics data to form overlay information. As discussed above with respect to claim 3, the common video combiner of Blahut forms overlay

information by combining the outputs from the video scalers and positioners and the text and cursor generators into a single video frame (column 8, lines 19-22). Thus, Blahut does not teach, inter alia, first and second video overlay generators that each include, inter alia, a keyer operatively coupled to a graphics data unpacker and responsive to the selectively routed video data from a programmable switching mechanism. Applicants respectfully request a showing by column and line number of such a teaching in Blahut. Because such a teaching is not shown, Applicants believe claims 4 and 11 to be allowable.

As to claims 5 and 19, Applicants respectfully reassert the relevant remarks with respect to claims 5 and 19 from the Amendment and Response dated June 22, 2001. Accordingly, Applicants believe claims 5 and 19 to be allowable.

As to claims 6 and 20, Applicants respectfully reassert the relevant remarks with respect to claims 6 and 20 from the Amendment and Response dated June 22, 2001. Accordingly, Applicants believe claims 6 and 20 to be allowable.

As to claims 7, 13, and 21, the Examiner asserts that Blahut teaches, inter alia, wherein the video-clock source includes a programmable switch to facilitate switching between a plurality of display dependent clock signals that are selectively coupled to a common video scaler line buffer. In particular, the Examiner asserts, at page 7 of the Office Action, that "Blahut discloses a video scaler [Fig. 4; 432] common to all timed full-motion video data." Respectfully, Applicants disagree. Applicants respectfully reassert the relevant remarks with respect to claims 7, 13, and 21 from the Amendment and Response dated June 22, 2001. Moreover, Applicants note that the cited element from Figure 4 actually discloses multiple video scalers visually superimposed on one another, showing separate input and output signals for each. Such an interpretation of the figure is supported by the Blahut specification. As disclosed at column 8, lines 58-64 (and as Examiner concedes in the remarks with respect to claims 6 and 20), in an exemplary embodiment, the composing unit includes multiple still-frame and fill-motion video compressors and a corresponding number of video scalers and positioners. Thus, each video signal must have a corresponding video scaler to process that video signal. As discussed in the Specification of the present invention at page 2, lines 4-13, this configuration is typical of (consequently costly) prior art systems, upon which the present invention improves. In contrast, Applicants claim, inter alia, wherein the video-clock source includes a programmable

switch to facilitate switching between a plurality of display dependent clock signals that are selectively coupled to a common video scaler line buffer. Applicants are unable to find such a teaching in Blahut. Applicants respectfully request a showing by column and line number of such a teaching in Blahut. Because such a teaching is not shown, Applicants believe claims 7, 13, and 21 to be allowable.

Claims 8, 14, and 22, are dependent upon claims 1, 9, and 15 respectively. Claim 1 has been shown to be allowable above. Claims 9 and 15 will be shown to be allowable below. Moreover, claims 8, 14, and 22 introduce additional novel subject matter that represents patentable subject matter. Accordingly, Applicants believe claims 8, 14, and 22 to be allowable.

As to claim 9, Applicants respectfully reassert the relevant remarks with respect to claim 1 above and with respect to claim 9 from the Amendment and Response dated June 22, 2001. Accordingly, Applicants believe claim 9 to be allowable.

As to claims 15, the Examiner asserts that Blahut teaches, inter alia, scaling input video through a common video scaler for a plurality of video overlay generators; and selectively routing video data from the common video scaler to one of the plurality of video overlay generators to facilitate selective display of overlay data on a display device. Applicants respectfully reassert the relevant remarks with respect to claims 1, 7, 13, and 21 above and with respect to claim 15 from the Amendment and Response dated June 22, 2001. Accordingly, Applicants believe claim 15 to be allowable.

As to claim 17, Applicants respectfully reassert the relevant remarks with respect to claim 17 from the Amendment and Response dated June 22, 2001. Accordingly, Applicants believe claim 17 to be allowable.

As to claim 18, Applicants respectfully reassert the relevant remarks with respect to claim 18 from the Amendment and Response dated June 22, 2001. Accordingly, Applicants believe claim 18 to be allowable.

Applicants have made certain amendments to the claims. Applicants submit that none of these amendments introduce new matter into the specification.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made".

Applicants respectfully request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

By: _____

Christopher J. Reckamp
Registration No. 34,414

Date: October 30, 2001

VEDDER, PRICE, KAUFMAN &
KAMMHOLZ
222 N. LaSalle Street
Chicago, IL 60601
(312) 609-7500
FAX: (312) 609-5005

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please substitute claims 1 and 9 below for the claims having corresponding numbers:

1.   A video overlay apparatus comprising:

a video scaler operatively responsive to input video data; and

a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data <u>from the video scaler</u> to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device.

9.   A video overlay apparatus comprising:

a video scaler operatively responsive to input video data;

a first display engine responsive to first graphics data for generating first video window timing data,

a second display engine responsive to second graphics data for generating second video window timing data,

a first video overlay generator operatively responsive to first graphics data;

a second video overlay generator operatively responsive to the second graphics data; and

a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data <u>from the video scaler</u> to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein the programmable switching mechanism includes a selectable video clock source operatively coupled to the video scaler wherein the video scaler scales input video corresponding to a display engine for at least one of the plurality of video overlay generators in response to a video clock signal output from the selectable video clock source.